

Work Order ID 58600

May 12, 2010 10:28:19 AM



Page 1

Item ID: D3690-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Glareshield Assembly

Start Date: 12/05/2010 Start Qty: 3.00



Cust Item ID:

Required Date: 18/05/2010 Req'd Qty: 3.00



Customer:

Reference:

Approvals:

Process Plan:

RA

Date: 10-5-12 Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start



Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D3690

Rev B

100

Pick Kit

0.00



Packaging

Memo

0.00

Packaging

=> m-h 10/07/05

(3X)

110

Small Fab

0.00



Small Fab

Memo

0.00

Small Fab

1- transfer drill D3697-041 and D3698-1 in D3690-1 and assemble as per dwg
D3690-2- scribe bath # and part # as per dwg

=> m-h 10/07/05

(3X)

120

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

8/10/07/05

(3X)

See 150-

RRP 58599 10/8/13 PZ

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

Initial all entries

Work Order ID 58600

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Page 2

Item ID: D3690-041

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Cust Item ID:

Required Date: 18/05/2010 Req'd Qty: 3.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

0.00



SprayPaint

SprayPaint

Memo

0.00

Spray Painting

1- Mask hatched areas (6 pls) on inside of the part prior to painting as per
dwg □ 2- Paint D3690-041 assy flat black using Basf Glasurit 22 Line code
SFA39.50 per Dart QSI 005 4.2

m 10 07 28 (3)

140

0.00



QC14- Inspect Spray Paint

QC

Memo

0.00

Quality Control

1008:05
See attached
e-mail. Notes Parts are mat Black.
~~10 07 29 (3)~~

160

0.00



QC21- Final Inspection - Work Order Release

QC

Memo

0.00

Quality Control

C21018114

W/O:		WORK ORDER CHANGES					
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NOTE: Date & initial all entries

Picklist Print

May 12, 2010 10:28:23 AM

Page 1

Work Order ID: 58600

Parent Item: D3690-041

Parent Item Name: Glareshield Assembly

Comments: IPP Rev:A 08-04-29 new issue DD verified by:ec
 IPP Rev:B 08-07-14 revB as per dwg DD verified by:ec
 IPP Rev:C 08-09-08 added painting DD verified by:EC
 IPP Rev:D 08-10-07 revC as per dwg DD verified by:EC

Start Date: 12/05/2010

Required Date: 18/05/2010

Start Qty: 3.00

Required Qty: 3.00

AN960JD3

Purchased

No

Each

146.0000

2



Washer

Location

Loc Qty

Loc Code

ST346

146

107989 ✓

146

CR3213-4-03

Purchased

No

Each

179.0000

35



rivet

Location

Loc Qty

Loc Code

ST312

179

19099 ✓

179

D3690-1

Manufactured

No

Each

0.0000

1



Glareshield

D3697-041

Manufactured

No

Each

2.0000

1



Tube Assembly

Location

Loc Qty

Loc Code

ST241A

2

50310 ✓

2

D3698-1

Manufactured

No

Each

2.0000

1



Support Angle

Location

Loc Qty

Loc Code

ST241A

2

41656 ✓

2

59244

6X m-l 10/06/28

105X m-l 10/06/28

3X m-l 10/06/28

2X m-l 10/06/28
 1X m-l 10/06/28

2X m-l 10/06/28
 1X m-l 10/06/28

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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NOTE: Date & initial all entries

Picklist Print

May 12, 2010 10:28:23 AM

Page 2

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IPP Rev:B 08-07-14 revB as per dwg DD verified by:ec
IPP Rev:C 08-09-08 added painting DD verified by:EC
IPP Rev:D 08-10-07 revC as per dwg DD verified by:EC

Start Qty: 3.00

Required Qty: 3.00

MS20426AD3-5

Purchased

No

Each

14,994.00

2



Rivet

Location

Loc Qty

Loc Code

ST316

14994

4179 ✓

3156

4444

5678

4533

6160

6x m-l 10/06/28

May 12, 2010 10:28:23 AM

Shop Packet Print

Page 2

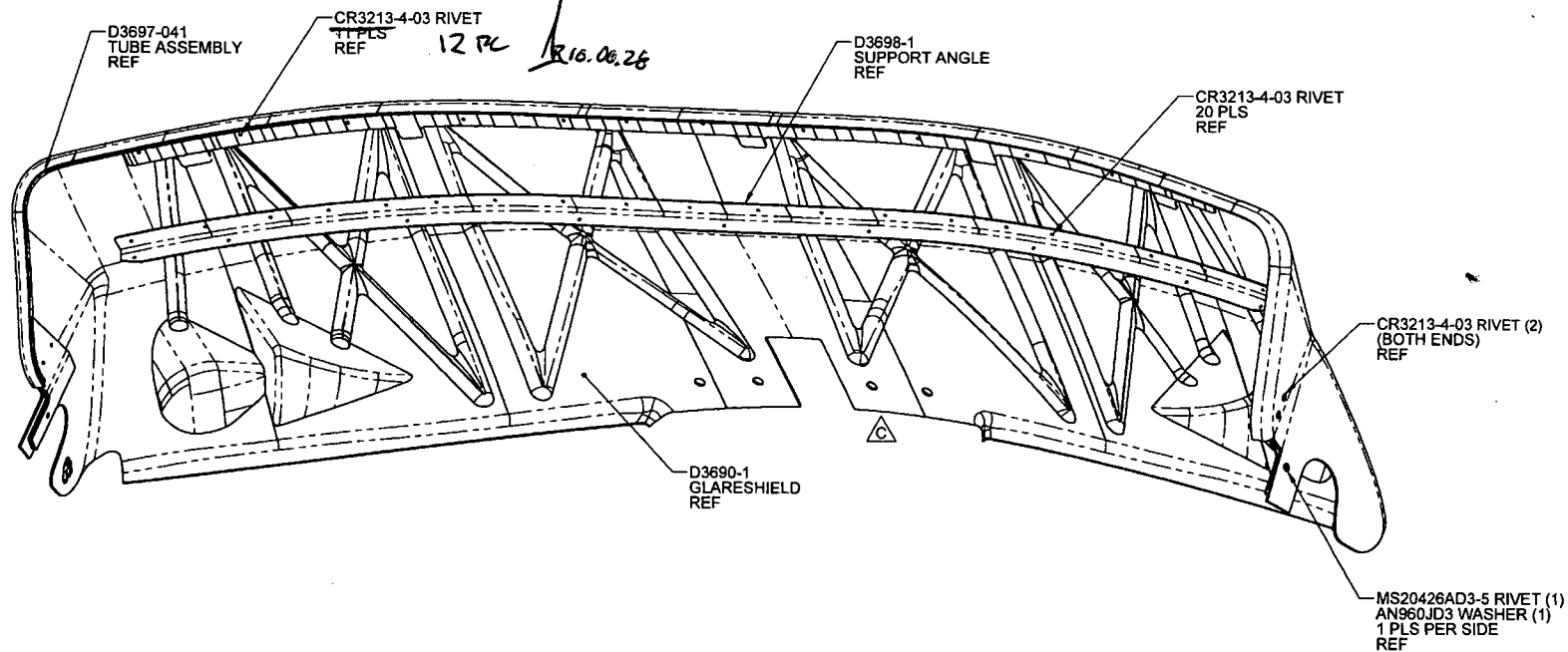
W/O:		WORK ORDER CHANGES					
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PART LIST

QTY .041	PART NUMBER	DESCRIPTION
X	D3690-041	GLARESHIELD ASSEMBLY
1	D3690-1	GLARESHIELD
1	D3697-041	TUBE ASSEMBLY
1	D3698-1	SUPPORT ANGLE
2	AN960JD3	WASHER (OR NAS1149DN332J)
2	MS20426AD3-5	RIVET
35	CR3213-4-03	RIVET

D3690-041 GLARESHIELD ASSEMBLY

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 38600

C	SHEET 1 PL MS20426AD3-5 RIVET WAS MS20426AD3-4, CR3213-4-03 RIVET WAS MS20470AD3-4, WASHER QTY WAS 6 (VIEWS UPDATED ACCORDINGLY). RIVETS ON SHEET 1 CHANGED TO REF QTY. RIVETS ON SHEET 2 CHANGED TO "HARD" CALL OUTS. SHADING REMOVED FROM ALL VIEWS FOR CLARITY.	AJS	08.09.02
B	ADD FINISH COAT & 1.0 TYP. SHEET 2 ZONES A, B & C.5; ADD MIN THICKNESS. SHEET 3 ZONE A, B	RF	08.06.24
A	NEW ISSUE	RF	08.05.26
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3690	SHEET 1 OF 3
APPROVED		TITLE	SCALE
DE APPR.		GLARESHIELD ASSEMBLY	NTS
DATE	08.09.02	<small>COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

RELEASED
28.04.16

PS10-5-12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

8 7 6 5 4 3 2 1

△ TRANSFER DRILL Ø0.128
FROM D3698-1 TO D3690-1
INSTALL
CR3213-4-03 RIVET, 20 PL
RIVET HEAD ON GLARESHIELD
OUTSIDE SURFACE

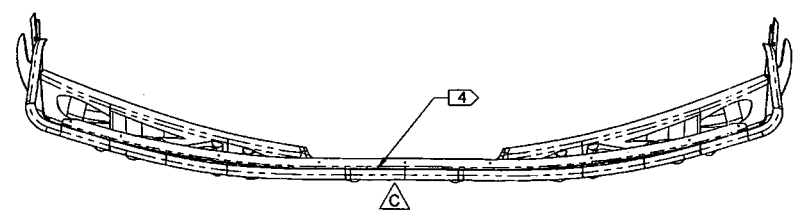
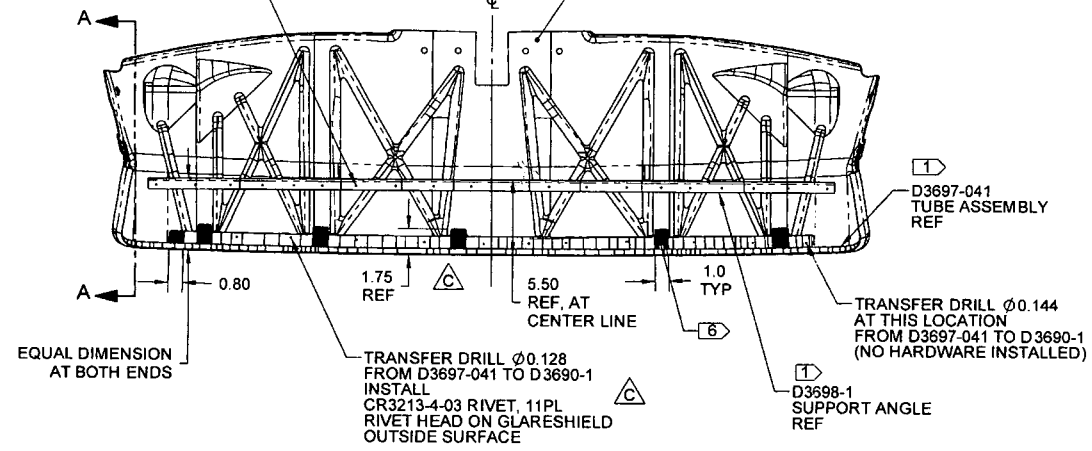
D3690-1
GLARESHIELD
REF

TRANSFER DRILL Ø0.098
FROM D3697-041 TO D3690-1
INSTALL
MS20426AD3-5 RIVET
AN960JD3 WASHER (ON GLARESHIELD
OUTSIDE SURFACE)
1 PER SIDE

TRANSFER DRILL Ø0.128
FROM D3697-041 TO D3690-1
INSTALL
CR3213-4-03 RIVET 2
BOTH ENDS

0.14
REF

SECTION A-A







D3690-041 GLARESHIELD ASSEMBLY

Wb 58600

RELEASED
08-09-11

- NOTES:
- 1) CENTER D3697-041 AND D3698-1 ON TO D3690-1
 - 2) FINISH: PAINT D3690-041 ASSY FLAT BLACK USING BASF GLASURIT 22 LINE CODE SFA39.50 PER DART QSI 005 4.2
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) IDENTIFICATION: ETCH WITH DART P/N D3690-041 & B/N ON INSIDE OF PART
 - 5) WEIGHT: 2.98 lbs
 - 6) MASK HATCHED AREAS (6 PLS) ON INSIDE OF THE PART PRIOR TO PAINTING

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3690	SHEET 2 OF 3
APPROVED		TITLE	SCALE
DE APPR.		GLARESHIELD ASSEMBLY	NTS
DATE	08.09.02	COPYRIGHT © 2008 BY DART AEROSPACE LTD	
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8 7 6 5 4 3 2 1

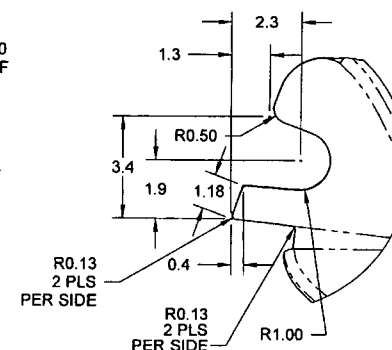
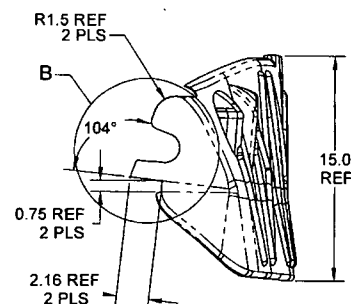
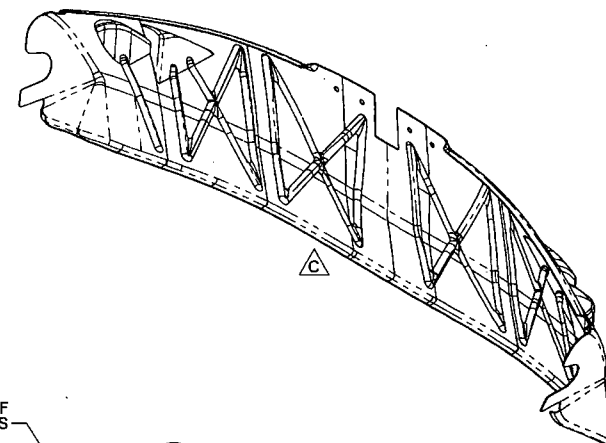
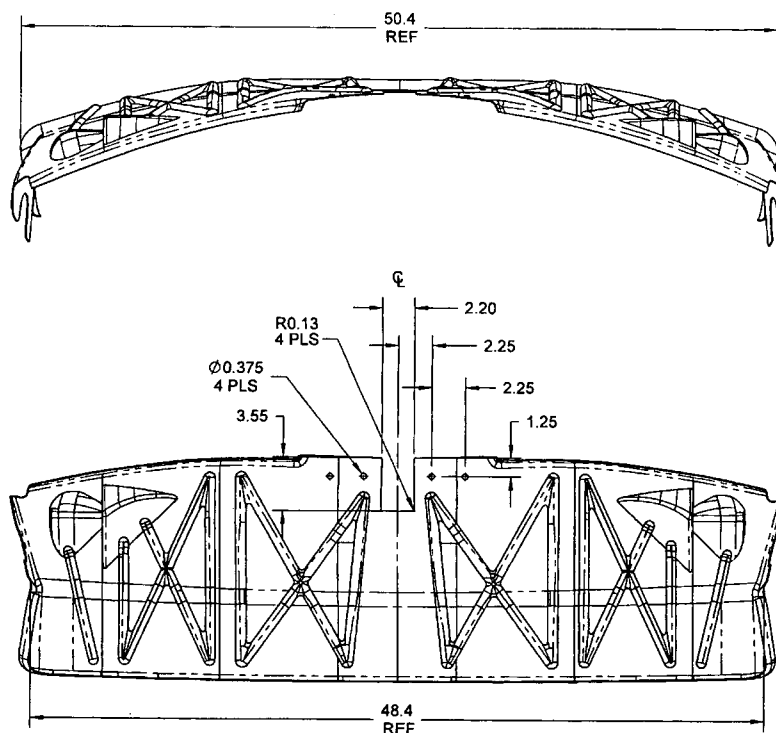
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D3690-1 GLARESHIELD

NOTES:


- 1) MATERIAL: F6006 SUEDE/POLISHED 701 BLACK FLAT LEXAN SHEET 0.093 THICK
(REF DART SPEC MLEXS.093-F6006-02)
- 2) TOOLING: THERMOFORM PER MOLD DT9010 PER QSI 022
TRIM PER MOLD SCRIBE LINES EXCEPT WHERE NOTED
- 3) FINISH: NONE
- 4) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 7) IDENTIFICATION: NONE
- 8) WEIGHT: 2.5 lbs
- 9) MINIMUM THICKNESS AFTER FORMING IS 0.040

w/o 58600

RELEASED
08.09.02

DETAIL B SCALE 2X

THIS VIEW FOR REFERENCE ONLY

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3690	SHEET 3 OF 3
APPROVED		TITLE	SCALE
DE APPR.		GLARESHIELD ASSEMBLY	NTS
DATE	08.09.02	COPYRIGHT © 2008 BY DART AEROSPACE LTD	
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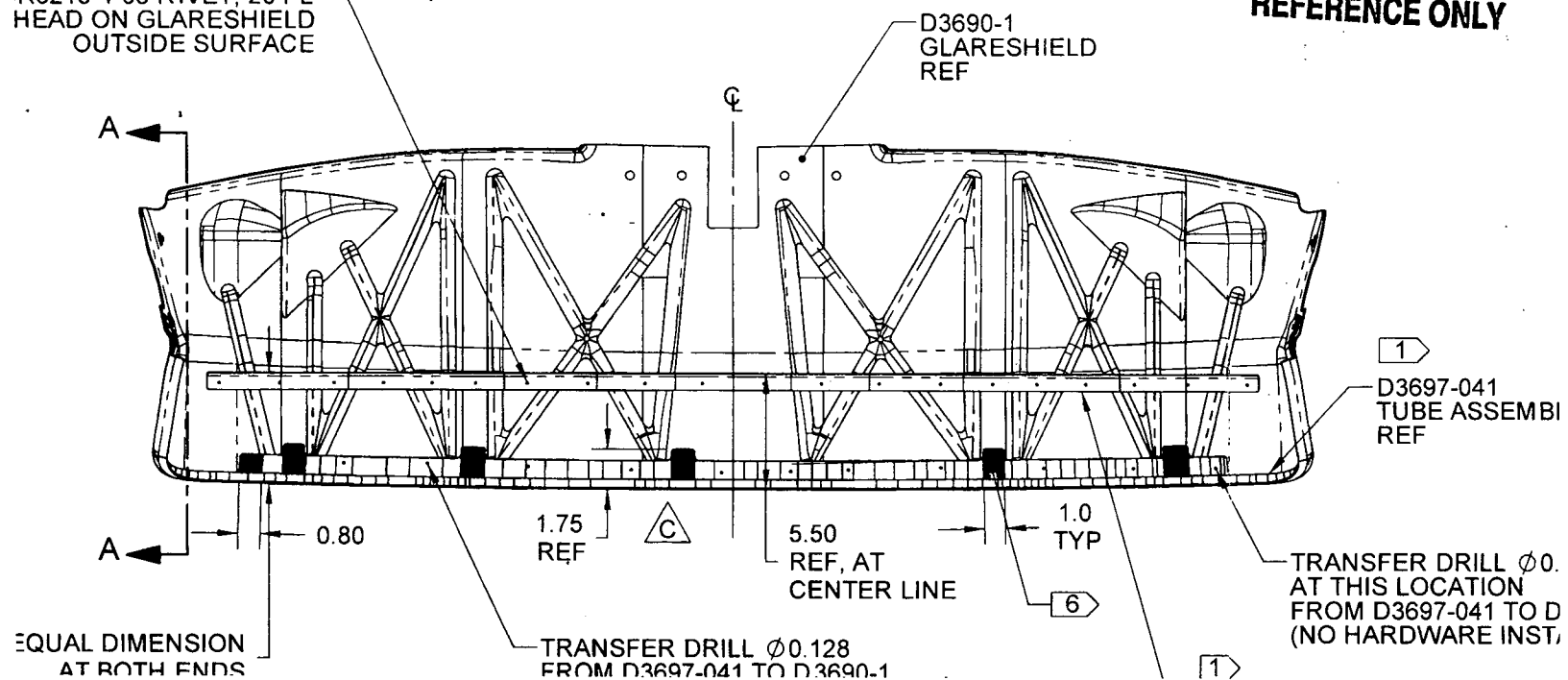
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TRANSFER DRILL $\phi 0.128$
FROM D3698-1 TO D3690-1
INSTALL
R3213-4-03 RIVET, 20 PL
HEAD ON GLARESHIELD
OUTSIDE SURFACE

REFERENCE ONLY



W/O:		WORK ORDER CHANGES					
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Jason Murdoch

From: David Shepherd [dshepherd@dartaero.com]
Sent: Thursday, August 05, 2010 12:47 PM
To: 'Jason Murdoch'
Subject: RE: D3690-041 glare sheilds B58600

Jason,

Matt assured me that the proper painting process was followed. As such, I think we have to accept some variability in the final results. I looked at the glare shields, and they are acceptable to me.

David

From: Jason Murdoch [mailto:jmurdoch@dartaero.com]
Sent: Thursday, August 05, 2010 9:15 AM
To: 'David Shepherd'
Subject: D3690-041 glare sheilds B58600
Importance: High

Hi David,

Last week Matt Murdoch showed you some glare shields that appeared to be slightly glossier than normal. However still flat / mat black.

Apparently the finish was acceptable to you. So I am just looking for confirmation that we can send them to packaging as is.

Thanks.

Jason Murdoch
Quality Coordinator
jmurdoch@dartaero.com
DART Aerospace Ltd.
613-632-5200

No virus found in this incoming message.

Checked by AVG - www.avg.com

Version: 8.5.441 / Virus Database: 271.1.1/3050 - Release Date: 08/04/10 04:45:00